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Monthly Statistical Report

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SUMMARY

Iraq's invasion of Kuwait on August 2 and the ensuing international embargo cut off about 4 million B/D of world crude oil supplies—equal to about 7 percent of world production and about 12 percent of international oil trade—at a time when world crude oil production was already running at close to 95 percent of capacity.

Because of concerns about reduced supplies from Iraq and Kuwait and uncertainties about events that might affect supplies from other parts of the Persian Gulf—which have accounted for over a quarter of world crude oil production and two thirds of its reserves—crude oil prices worldwide were bid up rapidly. World oil prices, which had already risen roughly 30 percent since mid-June as OPEC's production agreement was taking shape, rose an additional 60-70 percent in the three weeks following the invasion. With continued volatile price swings near the end of the month, the net increase since mid-June ranged from 70 to over 100 percent.

Product prices were bid up as well worldwide, on wholesale, spot, and retail levels, though not always by as much as the increase in crude costs. As crude prices fluctuated over a roughly $6-per-barrel range in the latter part of the month, the net rise in crude costs since mid-June worked out to anything from 25 to 40 cents per gallon. Retail gasoline prices in the U.S. rose by about 20 cents per gallon over the month, while in Europe increases ranged from 20 to 40 cents per gallon. In Japan, where prices, even before the invasion, equated to about $1.70 a gallon, excluding tax, prices rose more slowly.

Economic principles indicate that, given higher prices, a reduction in consumption would nearly always be observed, although perhaps at a lag. While it is true that August's 3.1 percent rise in domestic deliveries was substantially less than July's over 6 percent increase, it still exceeded the underlying trend in consumption which is estimated to have been roughly flat to down slightly prior to August's price increases. Apparently, just as for July, part of August's deliveries represented an increase in secondary and tertiary inventories rather than a rise in consumption. The strength of overall deliveries, however, appeared to be waning towards the latter part of the month.

In the face of strong deliveries, refinery production of gasoline and distillate reached the highest levels for any August since the 1970s. Even so, gasoline inventories declined 7 million barrels to an end-of-season level of 211 million barrels, 5 or 6 million barrels above the estimated minimum operating level. Distillate stocks' 8 million barrel increase was typical for the month, and month-end levels of 127 million barrels were 3 million barrels above the recent-year August average.

Imports declined slightly from July's levels but were up 4.1 percent over a year ago. With shipping lags of a month or more from the Middle East, shipments loaded before the Iraqi invasion continued to arrive during August, with some scheduled to continue arriving through September. Spot gasoline prices in Europe, which were running substantially higher than in the U.S. during August, may have provided an incentive for redirection of some product imports and a possible increment to exports, though little if any solid information on exports for the month is currently available. Domestic crude oil production continued to decline, falling 4.8 percent from a year ago.

PRODUCT SUPPLIED [1]

Gasoline

DELIVERIES RISE, BUT LESS THAN FOR JULY.

Gasoline deliveries' rate of growth slowed from July's 6 percent increase to 0.7 percent in August. Both increases, however, contrasted with the first-half decline in deliveries of about 1 percent. With some demand response to higher prices already taking place and an economy that has apparently continued to weaken, actual consumption in August most likely declined somewhat from a year ago. Thus, the year-to-year increase in deliveries appears to represent additions to nonprimary inventory rather than an increase in consumption, particularly in the early part of the month.

By month-end, retail prices were up about 20 cents per gallon over levels earlier in the summer, slipping a few cents near the end of the month. This put retail prices, on an inflation-adjusted basis, roughly 20 percent above the relatively stable levels experienced in the past four years but lower than in the first half of

	API ESTIMATES AUGUST		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	17.9	3.1	17.1	(0.3)
Crude production[2]	7.2	(4.8)	7.3	(5.6)
Total imports[3]	8.9	4.1	8.5	6.7
Stocks (million bbl)[3]	1,111	2.9	na	na

the 1980s, when retail prices were as much as 50 percent higher in today's dollars.

Though some demand response might be expected as a result of August's higher prices, it is unclear whether this response would be as large as in the past, due to current fleet's greater average fuel efficiency and the resulting impact on fuel costs. For a car with typical monthly mileage and average efficiency for those currently on the road, a 20 cent price increase works out to about $8 per month in increased fuel costs. At 1973 fuel efficiencies, this would have been about 50 percent more.

Distillates

GROWTH MODERATES, STILL LIKELY EXCEEDS USAGE. Distillate deliveries rose 2.8 percent, year to year in August, much less than July's double-digit rate but still diverging from estimated previous consumption trends. Distillate deliveries, which had already slowed to about a 1 percent growth rate last year from a nearly 5 percent rise in 1988, actually declined about 3 percent in this year's first half—though primarily because of unusually warm weather early in the year.

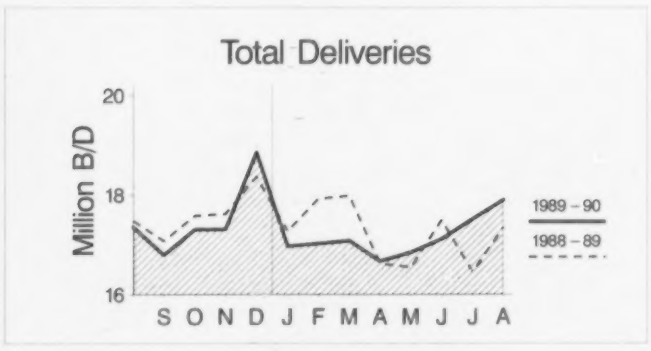
The underlying trend earlier this year had been estimated to be one of only slight growth, coming mainly from small increases in on-highway diesel usage. With the apparent slowing of the economy in recent months, the year-to-year increases in deliveries in the past two months, as with gasoline, more likely represent additions to nonprimary storage rather than any surge in consumption.

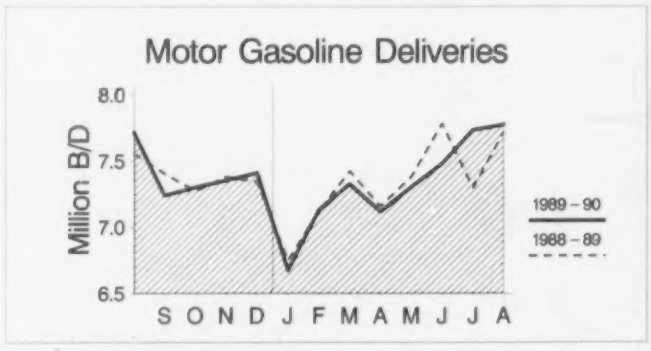
Residual Fuel Oil

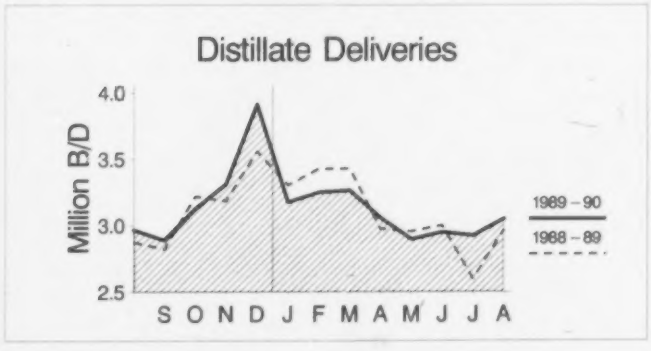
DELIVERIES UP FOUR MONTHS IN A ROW. Residual fuel deliveries were up nearly 14 percent in August, the fourth consecutive monthly increase. Despite this strong rise, growth in actual consumption was probably not so robust. While electricity demand grew slightly above trend during the month, resid prices increased relative to natural gas; and while military demand was stimulated by the heightened U.S. involvement in the Persian Gulf, military use of resid represents only a small share of total residual fuel demand. It is believed that, as with other products, changes in non-primary inventories contributed to a portion of the deliveries' increase.

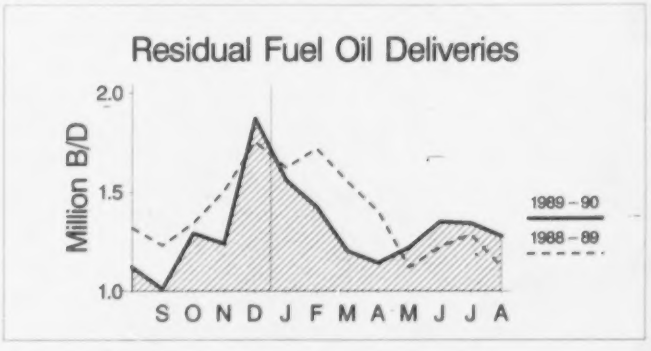
Nationwide, electricity demand was up by about 5 percent in August, above the trend of about 3 percent seen over the past year. Likewise, growth was above trend in the resid-intensive New England and Mid-Atlantic states where generation was up about 4 percent. Electric utility purchases of residual fuel in these states typically account for about two thirds of nationwide electric utility resid demand, and roughly 30 percent of nationwide resid use.

Vessel bunkering is believed to have maintained strength in August. While a weakening world economy has slowed growth in the foreign trade sector, U.S. waterborne imports of petroleum remain high. Also a factor in domestic bunker demand are prices in U.S. ports, which (although they have risen) have become more competitive with foreign ports following the Iraqi invasion. Demand is believed to have seen strong growth in military bunkering. However, military demand has historically









accounted for about one half of one percent of the domestic residual fuel oil market.

Kerosine Jet Fuel

DELIVERIES RISE 12.4 PERCENT. Deliveries of kerosine jet fuel were up 12.4 percent in August—above the trend growth in both jet fuel deliveries (previously running between 4 and 5 percent) and jet travel (running between 6 and 7 percent). The sizeable monthly increase in jet fuel supplied is believed to be due in part to shifts into non-primary inventories. It may also reflect unquantified increases in military jet-fuel use to support the U.S. airlift to Saudi Arabia.

Data for July (the most recent available) show growth in airline traffic continuing in the 7 percent range. Despite the steady growth in miles flown, however, there are signs of weakening demand, particularly on domestic routes. Declining load factors (down by about 4 points from last year) tend to hide the slowing growth in passenger travel. Even though load factors are up on international flights, the total load factor has come down by about 2 points versus last year.

Other Oils

RECENT INCREASES CONTRAST WITH FIRST-HALF DROP. Deliveries of other oils followed a pattern similar to other products in August. Deliveries for the month were up an estimated 2.5 percent, less than the roughly 5 percent increase for July but contrasting with declines earlier in the year.

SUPPLY [1/]

Production

CRUDE PRODUCTION FALLS 4.8 PERCENT. Domestic crude oil production fell 4.8 percent or about 360 thousand B/D, year to year, for August. Alaskan production, which had been depressed as a result of maintenance and upgrading projects on the North Slope over the summer, recovered by 125 thousand B/D from July to 1.76 million B/D in August. Alaskan output, however, which began to decline last year, was still down by 110 thousand B/D from last August. Initiatives announced by North Slope producers to increment production there are scheduled to begin having an effect later in the year.

In the lower 48, crude oil production fell 4.4 percent or about 250 thousand B/D. A slowing in the decline trend of lower 48 production so far this year has become more apparent as more data have accumulated. According to the latest estimates, year-to-year declines in the lower 48 for much of 1990 have been running at 250 to 350 thousand B/D; in 1989, production outside Alaska had fallen about 385 thousand B/D.

Imports

DOWN FROM JULY, UP FROM A YEAR AGO. Imports in August, at 8.9 million B/D, where down slightly from July's 9.0 million B/D but up 4.1 percent over a year ago. With transit times of a month or more, oil loaded in the Middle East prior to the international embargo was still arriving in the U.S. throughout the month; thus, August import levels were relatively unaffected by the Mid-East crisis.

Product imports continued in the 2.2 to 2.3 million B/D of the past several months, though they were up about 17 percent from below-trend levels a year ago. Spot gasoline prices in Europe, which were running substantially higher than in the U.S. during August, may have provided an incentive for redirection some product imports and a possible increment to exports during the month—though imports of finished gasoline are still estimated to have been close to last August's 360 thousand B/D. Estimates published here of total exports and of domestic gasoline deliveries include the effects of an upward adjustment of gasoline exports by about 20 thousand B/D, to 50 thousand B/D; however, little solid information on exports during August is currently available. Distillate imports rose about 70 thousand B/D, year to year, to 322 thousand B/D, while residual fuel oil imports increased 113 thousand B/D to 614 thousand B/D. Kerosine jet fuel imports were about even with a year ago.

Total imports in August amounted to 49.6 percent of deliveries, about the same as the year-to-date average of 49.8 percent.

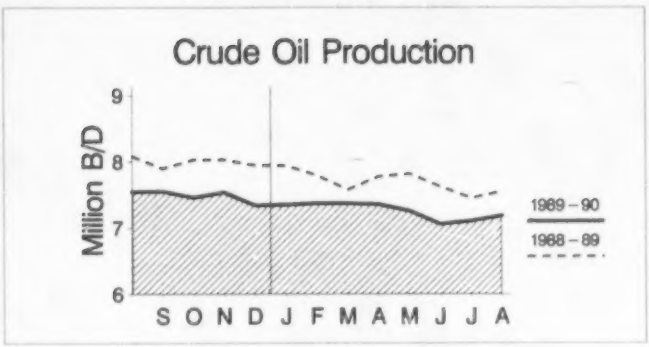
Refinery Operations

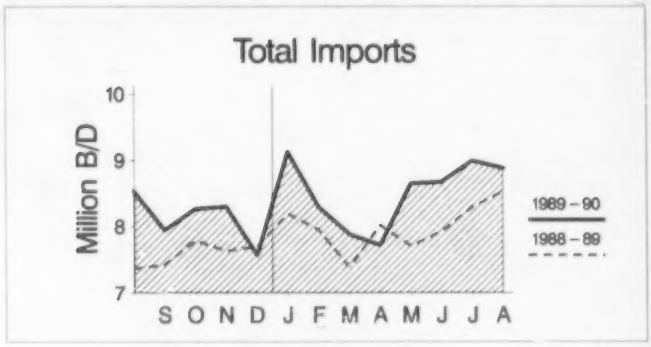
OUTPUT OF GASOLINE, DISTILLATE STRONG. Refineries ran at nearly full practical capacity in August, with input to distillation units up 2.8 percent over a year ago and utilization of capacity in actual operation exceeding 95 percent. Utilization of reported capacity averaged about 93 percent. Gasoline production reached 7.3 million B/D, up more than 2 percent over a year ago, while distillate output rose nearly 6 percent to 3.1 million B/D—with output of both products at the highest August levels since the late 1970s. Residual fuel oil output rose 8.1 percent, and kerosine jet fuel production, 0.7 percent.

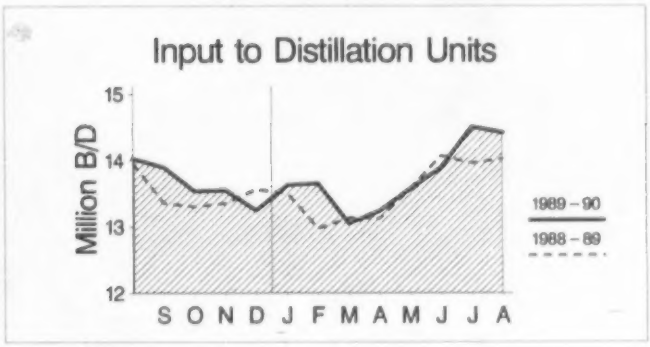
Inventories

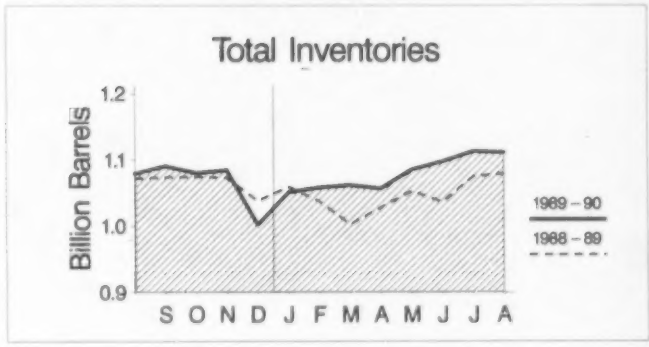
GASOLINE FALLS, DISTILLATE RISES. Total inventories were nearly unchanged from July, and at 1.1 billion barrels, were slightly higher than one year earlier. Crude stocks declined 9 million barrels over the month to 373 million barrels but were still 32 million barrels above year-ago-levels. Despite high gasoline production at refineries, the month's strong deliveries reduced inventories by 7 million barrels. Gasoline inventories at the end of the peak driving season were 211 million barrels, a level 5 or 6 million barrels above estimated minimum operating levels.

Distillate stocks rose 8 million barrels, about in line with the recent-year average for the month. At month-end, inventories stood at 127 million barrels, 3 million barrels above the recent-year average for August.









1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 590 million barrels as of August 31, 1990).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	AUGUST			YEAR-TO-DATE		
	1990[1]	1989[2]	% Change	1990[3R]	1989[2]	% Change
Products Supplied:						
Total motor gasoline	7,773	7,717	0.7	7,319	7,328	(0.1)
Finished leaded motor gasoline/*	413	783	(47.3)	427	916	(53.4)
Finished unleaded motor gasoline/*	7,360	6,934	6.1	6,892	6,412	7.5
Naphtha-jet	187	224	(16.5)	177	206	(14.1)
Kerosine-jet	1,416	1,260	12.4	1,306	1,245	4.9
Distillate fuel oil	3,048	2,966	2.8	3,069	3,078	(0.3)
Residual fuel oil	1,277	1,121	13.9	1,315	1,377	(4.5)
All other oils[4]	4,317	4,213	2.5	4,054	4,108	(1.3)
Reclassified[5]	-118	-141	(16.3)	-97	-143	(32.2)
Total domestic products supplied	17,900	17,360	3.1	17,143	17,199	(0.3)
Exports	746	967	(22.9)	766	852	(10.1)
Total products supplied	18,646	18,327	1.7	17,909	18,051	(0.8)
Supply:						
Domestic production:						
Crude oil[6]	7,182	7,544	(4.8)	7,252	7,686	(5.6)
Natural gas liquids	1,455	1,504	(3.3)	1,490	1,596	(6.6)
Other supply[7]	1,077	897	20.1	1,086	941	15.4
Total domestic supply	9,714	9,945	(2.3)	9,828	10,223	(3.9)
Imports:						
Crude oil, total[8]	6,552	6,533	0.3	6,243	5,719	9.2
Canadian	693	616	12.5	639	638	0.2
Other	5,859	5,917	(1.0)	5,604	5,081	10.3
Products, total	2,326	1,995	16.6	2,289	2,279	0.4
Residual fuel oil	614	501	22.6	566	661	(14.4)
Other	1,712	1,494	14.6	1,723	1,618	6.5
Total imports	8,878	8,528	4.1	8,532	7,998	6.7
Total supply	18,592	18,473	0.6	18,360	18,221	0.8
Stock change, all oils	-54	146	*****	451	170	*****
Refinery Operations						
Input to crude oil distillation units	14,412	14,024	2.8	13,744	13,550	1.4
Operable capacity	15,516	15,706	(1.2)	15,519	15,685	(1.1)
Refinery utilization (%)[9]	92.9	89.3	4.0	88.6	86.4	2.5
Crude oil runs	14,226	13,861	2.6	13,568	13,386	1.4

Stocks (millions bbls.)	1990		1989[2]	% Change from	
	Aug. 31[10]	Jul. 31[10]	Aug. 31	Previous Month	Year Ago
Crude oil[6]	372.5	381.7	341.0	(2.4)	9.2
Unfinished oils	111.4	111.8	106.2	(0.4)	4.9
Total motor gasoline/**	210.6	217.6	220.7	(3.2)	(4.6)
Finished leaded motor gasoline/*	10.3	10.3	22.3	0.0	(53.8)
Finished unleaded motor gasoline/*	162.4	167.2	159.7	(2.9)	1.7
Naphtha-jet	5.9	6.4	6.0	(7.8)	(1.7)
Kerosine-jet	41.9	44.7	42.3	(6.3)	(0.9)
Distillate fuel oil	127.4	119.1	116.3	7.0	9.5
Residual fuel oil	49.4	45.1	44.5	9.5	11.0
All other oils	191.8	186.1R	202.1	3.1	(5.1)
Total all oils	1,110.9	1,112.5R	1,079.1	(0.1)	2.9

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 January-June, DOE, July-August, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, Processing gain and Field Production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.